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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/437,458	11/10/1999	ANTHONY GIORDANO	50093/014001	8009

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101 FEDERAL STREET  
BOSTON, MA 02110

EXAMINER

LEFFERS JR, GERALD G

ART UNIT	PAPER NUMBER
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1636

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/437,458

Applicant(s)

GIORDANO ET AL.

Examiner

Gerald G Leffers Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2003.
- 2a) ☐ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3 and 12-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 3 and 12-37 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

Receipt is acknowledged of an amendment, filed 2/25/03 as Paper No. 25, in which claims were amended (claims 3, 28 & 33), and new claims were added (claims 35-37). Claims 3, 12-37 are pending in the instant application.

Upon further review of the instant application and pending claims, it is evident that a new restriction requirement is necessary, due to the improper Markush group present in claim 32 and the burden on the Office in search all of the different and distinct inventions in a single application. Each of the nucleic acid sequences recited in the Markush group of claim 32 is directed towards a distinct nucleic acid sequence that is structurally and functionally different and distinct from the other nucleic acid sequences. For example, each of the nucleic acid sequences is likely to mediate binding to a different set of RBPs, depending upon its structure. Because each of the recited fusion nucleic acids is drawn to a different and distinct invention, and because of the search burden placed on the Office in examining all of the fusion nucleic acids together in a single application, the following restriction requirement is made.

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

Group 1. Claims 3, 12, 32-37, drawn to nucleic acids comprising SEQ ID NO: 1 that mediate RNA binding protein (RBP) activity or mediate functionality of an mRNA, classified in class 536, subclasses 23.1, 24.1.

Groups 2-20. Claims 3, 32-37 and one of claims 13-31, drawn to nucleic acids comprising one of SEQ ID NOS: 2-20, respectively, that mediate RNA binding

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protein (RBP) activity or mediate functionality of an mRNA, classified in class 536, subclass 23.1, 24.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions Groups 1-20 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are drawn towards nucleic acids that are chemically, structurally and functionally distinct from one another and which are not disclosed as capable of use together. For example, each of the sequences represented by SEQ ID NOS: 1-20 are derived from distinct RNA sequences known to bind to RNA-binding proteins and/or that mediate RNA function. Because each sequence is chemically and structurally distinct from the other sequences, the operation and function of nucleic acids comprising the recited sequences are also likely to be distinct (e.g. binding of a particular RNA-binding protein, mediation of RNA function for an RNA of a given sequence). Therefore, each of the different sequences of the different groups is capable of supporting a separate patent.

Because these inventions are distinct for the reasons given above and the search required for each of the different Groups is not required for any of the other Groups, restriction for examination purposes as indicated is proper. For example, although applicants' have previously elected a species of the claimed invention (i.e. embodiments drawn towards SEQ ID NO: 20), there remains a requirement to search databases for both issued files and pending applications prior to disposal of the instant application. Given the overall search burden placed on the Office

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based on the ever-increasing size of the available databases and ever increasing number of applications comprising claims directed to nucleic acid or amino acid sequences, the additional search required for multiple sequences in the instant application necessarily constitutes an undue burden on the Office.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald G Leffers Jr. whose telephone number is (703) 308-6232. The examiner can normally be reached on 9:30am-6:00pm.

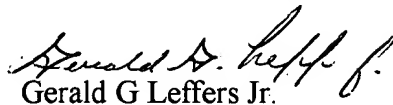
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel can be reached on (703) 305-1998. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7939 for regular communications and (703) 305-7939 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



Gerald G Leffers Jr.

Examiner

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Ggl

May 19, 2003